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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/734,052

12/11/2003

Mike C. Burr

68,009-070

8993

27305

7590

09/05/2006

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EXAMINER

ADDISU, SARA

ART UNIT

PAPER NUMBER

3722

DATE MAILED: 09/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/734,052	BURR ET AL.	
	Examiner	Art Unit	
	Sara Addisu	3722	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 and 25 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This Office Action is in response to the amendment filed 5/25/06. Currently, claims 1-48 are pending in this application.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

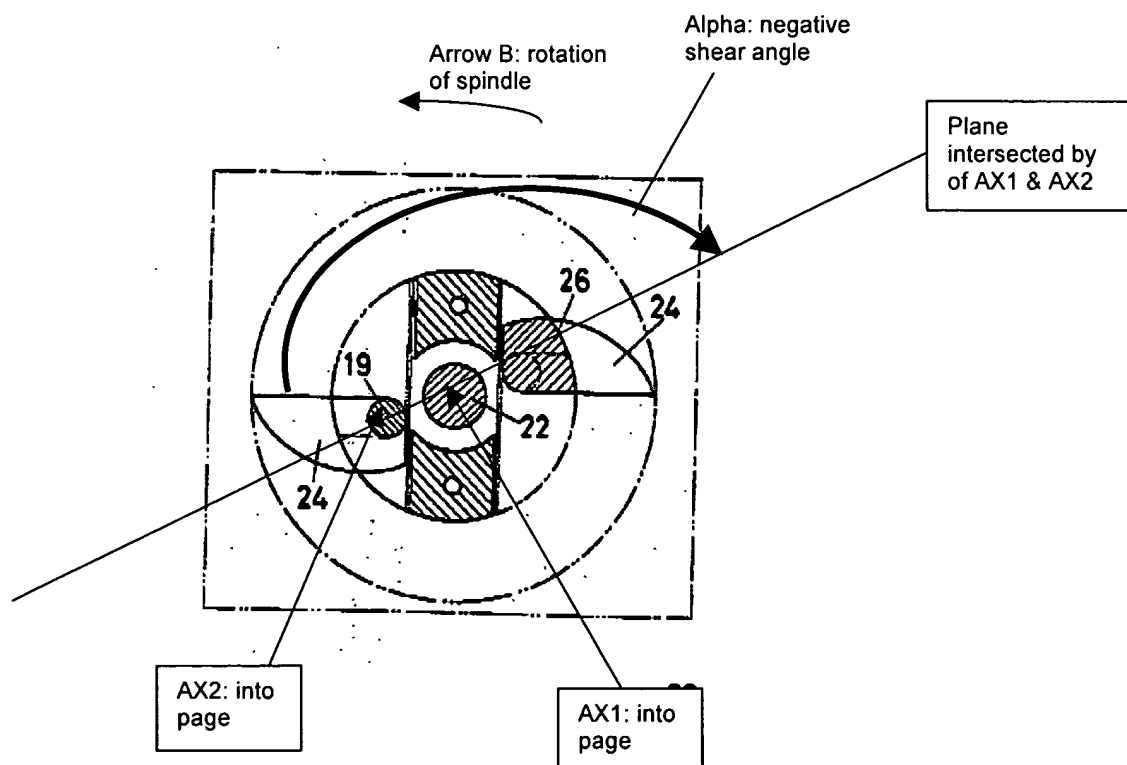
1. Claims 1-10, 12-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Johansson (USP 3,540,324).

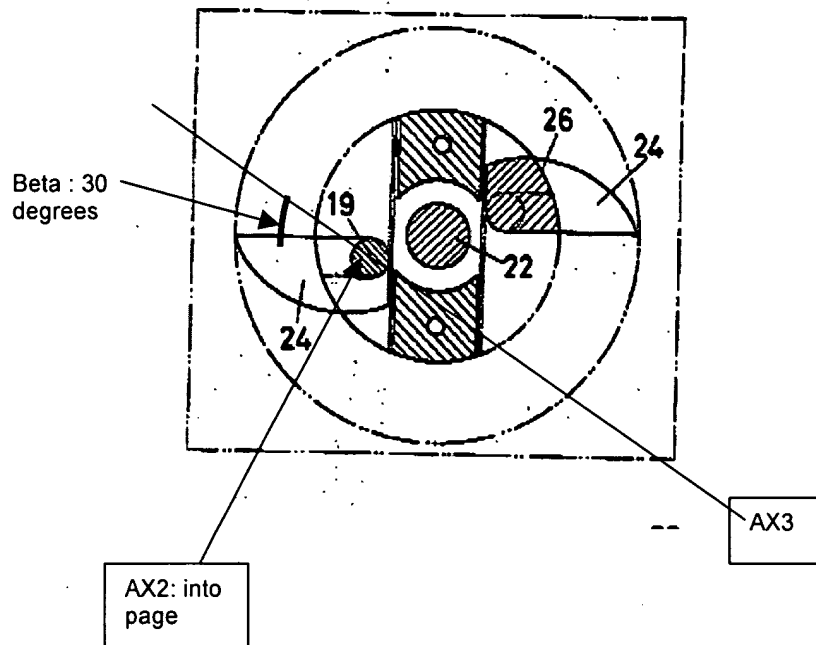
Regarding claim 1, JOHANSSON teaches a backspot facing tool comprising a shaft having a first and a second end, a recess located near the first end having a first and second transverse surfaces that are generally parallel to each other and perpendicular to the first axis (as claimed in claims 8 and 27) , the shaft having an outer circumference and being centered on said first axis (first axis being the center of 22: see figure below) and a cutting element (24) having an inner and outer portion and being provided with a pivot point (20: pivoting about a second axis) ('324, figures 4 & 5 and Col. 3, lines 64+). JOHANSSON also teaches cutter element (24) being movable

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between a closed position and an open position ('324, Col. 4, lines 3-12). Furthermore, regarding claim 1, JOHANSSON teaches the first axis (AX1) and the second axis (AX2: see figure below) being parallel and offset (as claimed in claim 15) and with the spindle rotating in the anti-clockwise direction (arrow B: note that JOHANSSON teaches that it is customary with machines to reverse the direction of rotation, col. 2, lines 67-70, therefore Examiner chose the anti-clockwise rotational direction), the inner surface of the cutting element forming a negative shear angle ( $\alpha$ ) with a plane intersecting the first axis (AX1) and the second axis (AX2) (see figure below). Regarding claim 2, JOHANSSON teaches the cutting element (24) being within an outer circumference of the shaft when in the closed position ('324, Col. 4, lines 6-8). Regarding claim 4 JOHANSSON teaches the cutting edge (that is perpendicular to AX2). Regarding claims 5-7, JOHANSSON teaches a third axis (AX3: see figure below) that is perpendicular to the second axis (AX2), wherein the cutting edge forms an angle ( $\beta$ ) with the third axis (AX3) that is less than or equal to 45 degree/ 30 degrees (see figure below. Note: reading the claim broadly, the third axis (AX3) is an arbitrary line drawn such that it is perpendicular to AX2). Regarding claim 8, JOHANSSON teaches said recess includes first and second transverse surfaces that are generally parallel to each other and perpendicular to the first axis ('324, Figure 4). Regarding claim 9, JOHANSSON also teaches a centering element (19) located on a first end, being received within a first centering bore in the first surface of the recess. Regarding claims 12-14, JOHANSSON teaches the cutting cutter (24) is provided with a carbide insert (30) ('324, Col. 3, lines 72-74). Regarding claims 16-18, JOHANSSON teaches the backspot facing tool being

adapted to be rotated in two opposite directions of rotation such that it rotates in a first direction (anticlockwise direction) to remove material from a workpiece and the cutting element (24) swings automatically (i.e. exhibits an over-center cam action) towards the closed position when the backspot facing tool is rotated in a second direction (clockwise) ('324, Col. 1, lines 54-72). Regarding claim 10, JOHANSSON teaches another embodiment, figure 6, where the inner portion of the cutting element includes a centering bore located in a second end, that is aligned with a retaining screw bore of the shaft, the retaining screw bore being adapted to receive a retaining screw (41) having a second centering element that is received in the centering bore of the cutting element ('324, figure 6).





### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11, 19-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johansson (USP 3,372,610) in view of Swenson (USP 3,827,821).

JOHANSSON teaches a backspot facing tool with a cutting edge, as set forth in the above rejection. JOHANSSON also teaches the cutting element (24) being within an outer circumference of the shaft when in the closed position ('324, Col. 4, lines 6-8). Regarding claims 22 and 23, JOHANSSON teaches in figure 3, the cutting element having a cutting edge that is perpendicular to a second axis (axis going through pivot point of cutting element). Regarding claims 24-26, JOHANSSON teaches a third axis (AX3: see figure above) that is perpendicular to the second axis (AX2), wherein the cutting edge forms an angle (beta) with the third axis (AX3) that is less than or equal to 45 degree/ 30 degrees (see figure above. Note: reading the claim broadly, the third axis (AX3) is an arbitrary line drawn such that it is perpendicular to AX2). Regarding claims 27 and 42, JOHANSSON teaches said recess includes first and second transverse surfaces that are generally parallel to each other and perpendicular to the first axis ('324, Figure 4). Regarding claims 28 and 43, JOHANSSON also teaches a centering element (19) located on a first end, being received within a first centering bore in the first surface of the recess. . Regarding claims 31-33 and 46-48, JOHANSSON teaches the cutting cutter (24) is provided with a

carbide insert (30) ('324, Col. 3, lines 72-74). Regarding claims 35, JOHANSSON teaches the backspot facing tool being adapted to be rotated in two opposite directions of rotation such that it rotates in a first direction (anticlockwise direction) to remove material from a workpiece and the cutting element (24) swings automatically (i.e. exhibits an over-center cam action) towards the closed position when the backspot facing tool is rotated in a second direction (clockwise) ('324, Col. 1, lines 54-72). Regarding claim 37, JOHANSSON teaches retaining screw (22). Regarding claims 39-41, JOHANSSON teaches the shaft pivoting about a second axis (AX2) and the retaining screw (22) forms an angle (90 degrees) with a third axis (AX3) which is perpendicular to AX2 (see figure below). Regarding claims 29 and 44, JOHANSSON teaches another embodiment, figure 6, where the inner portion of the cutting element includes a centering bore located in a second end, that is aligned with a retaining screw bore of the shaft, the retaining screw bore being adapted to receive a retaining screw (41) having a second centering element that is received in the centering bore of the cutting element ('324, figure 6). Regarding claims 11, 30 and 45, it is old and well known to have a cutting element that is unitarily formed (as evidence by Swenson).

However, JOHANSSON fails to teach the cutting element having an intermediate position.

Swenson teaches a back spot facing tool having a pivotable cutting element (36) ('821, figure 1). Swenson also teaches the tool being provided with an adjustable stop



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(50) to precisely position the cutting face angle of the blade ('821, figure 2 and , col. 1, line 63 through col. 2, line 2 & Col. 6, lines 3-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify JOHANSSON such that the cutting element can be pivoted to any desired intermediate position,, as taught by Swenson for the purpose of establishing the desired cutting blade angle (abstract, last two lines).

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-48 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sara Addisu  
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SA  
9/1/06

  
MONICA CARTER  
SUPERVISORY PATENT EXAMINER